UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,253	07/03/2003	Pieter G. Einthoven	02-0889/011563(BOE 0350 P	4882

7590 12/01/2005

John A. Artz
Artz & Artz, P.C.
Suite 250
28333 Telegraph Road
Southfield, MI 48034

EXAMINER	
TO, TUAN C	

ART UNIT	PAPER NUMBER
3663	

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/613,253	EINTHOVEN ET AL.	
	Examiner	Art Unit	
	Tuan C. To	3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *1* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-69* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-69* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Upon review of applicant's response/amendment dated 09/09/2005, it is noted that a restriction/election is warranted. Any inconvenience to applicant is regretted.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-20, 46-54, and 21, drawn to a process, classified in class 701, subclass 3.

II. Claims 22-45, and 55, drawn to an apparatus, classified in class 701, subclass 4.

III. Claims 56-69, drawn to an apparatus, classified in class 244, subclass 164.

3. The inventions I and II/III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the process as claimed can be practiced by a materially different apparatus, for example, a control system for controlling vertical take-off or landing of an aircraft.

4. Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the invention II directs to a system for maintaining constant vertical

state including a control unit coupled to a plurality of sensors to generate cueing signal. The invention III directs to a system for determining the maximum and deceleration achieved either longitudinal or lateral axis of an aeronautical, including a control unit for calculating vertical control inceptor position.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. Upon election of invention I or II, the applicant is further required under 35 U.S.C 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claims are generic):

A.The embodidment of figure 1.

B. The embodiment of figure 2.

C.The embodiment of figure 4.

D.The embodiment of figure 6.

E.The embodiment of figure 7.

7. Upon election of species A, B, C, D, or E, the applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claims are generic):

a.Active force cueing system (claim 6)

b.Visual or tactile cueing system (claim 7)

8. Upon election of species a or b, the applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claims are generic):

i.Limits based on transfer of potential and kenetic energy (claim 9)

j.Limits based on potential change in vertical velocity (claim 10)

9. Upon election of species I, or j, the applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claims are generic):

a1.Constant vertical altitude (claim 12)

b1.Constant vertical velocity (claim 13)

c1.Constant flight path angle (claim 14)

10. Upon election of species a1, b1, or c1, the applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claims are generic):

a2. Vertical inceptor position predicted based on vehicle performance (claim 16)

b2. Vertical inceptor position predicted based on feedback loop of error (claim 17)

11. Upon election of species a2 or b2, the applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits

to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claims are generic):

a3. Minimum and maximum vertical inceptor positions limits based on predictions of vehicle performance (claim 18)

b3. Minimum and maximum vertical inceptor positions limits based on feedback (claim 19)

c3. Minimum and maximum vertical inceptor positions limits based on transmission torque, or engine torque, or etc.

12. Upon election of species a3, b3, or c3, the applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claims are generic):

a4.Controller generates control signal (claim 28)

b4.Controller generates vehicle flight profile (claim 29)

13. Upon election of species a4 or b4, the applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claims are generic):

a5. Controller in determining pitch attitude limit sets (claim 31)

b5.Controller in determining roll attitude limit sets (claim 32)

14. Upon election of species a5 or b5, the applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits

to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claims are generic):

a6.Generating cueing signal determines maximum change in pitch (claim 33)

b6. Generating cueing signal determines maximum change in roll attitude (claim 35)

c6. Generating cueing signal determines pitch attitude limits (claim 36)

d6. Generating cueing signal determines roll attitude limits (claim 37)

e6. Generating cueing signal determines pitch attitudes using conservation of energy (claim 38).

f6. Generating cueing signal determines pitch attitudes and roll attitudes using conservation of energy (claim 39)

g6. Generating cueing signal determines pitch attitudes and roll attitudes using thrust and gravitational force (claim 42)

15. Upon election of species a6, b6, c6, d6, e6, f6, or g6, the applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claims are generic):

a7.Conservation of energy based on pitch attitudes limits and roll attitudes limits to vertical controller parameters (claim 40)

b7. Conservation of energy based on pitch attitudes limits and roll attitudes limits to torque (claim 41)

16. Upon election of species a7 or b7, the applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claims are generic):

a8.Using conservation of energy based relationships (claim 50)

b8.Using thrust and gravitational force based relationships (claim 51)

17. Upon election of species a8 or b8, the applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claims are generic):

a9.Acceleration and deceleration limits represented as pitch and roll attitude limits (claim 57)

b9. Acceleration and deceleration limits represented as allowable increase or decrease in pitch or roll attitude (claim 58)

18. Upon election of species a9 or b9, the applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claims are generic):

a10.Limits are cued to tactile cues (claim 60)

b10.Limits are cued to an aural (claim 61).

19. Upon election of species a10 or b10, the applicant is further required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits

to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claims are generic):

a11.Calculated limits based on transfer of potential and kinetic energy (claim 63)

b11.Calculated limits based on the potential change in vertical velocity (claim 64)

c11.Calculated limits based on rotor thrust (claim 66)

20. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

21. Applicant is reminded that upon the cancellation of claims to a non-elected

invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

22. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Conclusions

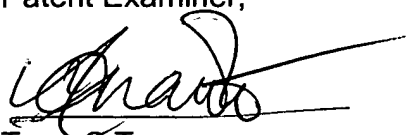
23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan C To whose telephone number is (571) 272-6985. The examiner can normally be reached on from 8:00AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner,



Tuan C To

November 15, 2005